



IFW16

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/618,380C

DATE: 07/29/2004
TIME: 09:31:19

Input Set : A:\SEQLIST4920USv3.txt
Output Set: N:\CRF4\07292004\I618380C.raw

3 <110> APPLICANT: Weiner, George
 4 Gingrich, Roger
 5 Link, Brian
 6 Tso, J. Yun
 8 <120> TITLE OF INVENTION: HUMANIZED ANTIBODIES AGAINST CD3
 10 <130> FILE REFERENCE: 05882-0176-CNUS03
 12 <140> CURRENT APPLICATION NUMBER: US 09/618,380C
 13 <141> CURRENT FILING DATE: 2000-07-18
 15 <150> PRIOR APPLICATION NUMBER: US 08/397,411
 16 <151> PRIOR FILING DATE: 1995-03-01
 18 <150> PRIOR APPLICATION NUMBER: US 07/859,583
 19 <151> PRIOR FILING DATE: 1992-03-27
 21 <160> NUMBER OF SEQ ID NOS: 14
 23 <170> SOFTWARE: PatentIn version 3.1
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 107
 27 <212> TYPE: PRT
 28 <213> ORGANISM: Artificial Sequence
 30 <220> FEATURE:
 31 <223> OTHER INFORMATION: Light chain of Humanized 1D10 Ab minus signal sequence
 33 <400> SEQUENCE: 1
 35 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 36 1 5 10 15
 39 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu Asn Ile Tyr Ser Tyr
 40 20 25 30
 43 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Val
 44 35 40 45
 47 Ser Asn Ala Lys Thr Leu Ala Glu Gly Val Pro Ser Arg Phe Ser Gly
 48 50 55 60
 51 Ser Gly Ser Gly Lys Gln Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 52 65 70 75 80
 55 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln His His Tyr Gly Asn Ser Tyr
 56 85 90 95
 59 Pro Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
 60 100 105
 63 <210> SEQ ID NO: 2
 64 <211> LENGTH: 107
 65 <212> TYPE: PRT
 66 <213> ORGANISM: Mus sp.
 68 <400> SEQUENCE: 2
 70 Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Ser Ala Ser Val Gly
 71 1 5 10 15
 74 Glu Thr Val Thr Ile Thr Cys Arg Ala Ser Glu Asn Ile Tyr Ser Tyr

ENTERED
(Pj.6)

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75 20 25 30
 78 Leu Ala Trp Tyr Gln Gln Lys Gln Gly Lys Ser Pro Gln Leu Leu Val
 79 35 40 45
 82 Ser Asn Ala Lys Thr Leu Ala Glu Gly Val Thr Ser Arg Phe Ser Gly
 83 50 55 60
 86 Ser Gly Ser Gly Lys Gln Phe Ser Leu Lys Ile Asn Ser Leu Gln Pro
 87 65 70 75 80
 90 Glu Asp Phe Gly Asn Tyr Tyr Cys Gln His His Tyr Gly Asn Ser Tyr
 91 85 90 95
 94 Pro Phe Gly Gly Thr Lys Leu Glu Ile Lys
 95 100 105
 98 <210> SEQ ID NO: 3
 99 <211> LENGTH: 116
 100 <212> TYPE: PRT
 101 <213> ORGANISM: Artificial Sequence
 103 <220> FEATURE:
 104 <223> OTHER INFORMATION: Heavy chain of Humanized 1D10 Ab minus signal sequence
 106 <400> SEQUENCE: 3
 108 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 109 1 5 10 15
 112 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Asn Tyr
 113 20 25 30
 116 Gly Val His Trp Val Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
 117 35 40 45
 120 Gly Val Lys Trp Ser Gly Gly Ser Thr Glu Tyr Asn Ala Ala Phe Ile
 121 50 55 60
 124 Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val Ser Leu
 125 65 70 75 80
 128 Lys Leu Asn Ser Leu Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 129 85 90 95
 132 Arg Asn Asp Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Leu Val
 133 100 105 110
 136 Thr Val Ser Ser
 137 115
 140 <210> SEQ ID NO: 4
 141 <211> LENGTH: 116
 142 <212> TYPE: PRT
 143 <213> ORGANISM: Mus sp.
 145 <400> SEQUENCE: 4
 147 Gln Val Gln Leu Lys Gln Ser Gly Pro Gly Leu Val Gln Pro Ser Gln
 148 1 5 10 15
 151 Ser Leu Ser Ile Thr Cys Thr Gly Ser Gly Phe Ser Leu Thr Asn Tyr
 152 20 25 30
 155 Gly Val His Trp Val Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Leu
 156 35 40 45
 159 Gly Val Lys Trp Ser Gly Gly Ser Thr Glu Tyr Asn Ala Ala Phe Ile
 160 50 55 60
 163 Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser Lys Ser Gln Val Phe Phe
 164 65 70 75 80

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167 Lys Met Asn Ser Leu Gln Ala Asp Asp Thr Ala Met Tyr Tyr Cys Ala
168 85 90 95
171 Arg Asn Asp Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val
172 100 105 110
175 Thr Val Ser Ser
176 115
179 <210> SEQ ID NO: 5
180 <211> LENGTH: 214
181 <212> TYPE: PRT
182 <213> ORGANISM: Artificial Sequence
184 <220> FEATURE:
185 <223> OTHER INFORMATION: Complete light chain of Humanized 1D10 Ab
187 <400> SEQUENCE: 5
189 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
190 1 5 10 15
193 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu Asn Ile Tyr Ser Tyr
194 20 25 30
197 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Val
198 35 40 45
201 Ser Asn Ala Lys Thr Leu Ala Glu Gly Val Pro Ser Arg Phe Ser Gly
202 50 55 60
205 Ser Gly Ser Gly Lys Gln Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
206 65 70 75 80
209 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln His His Tyr Gly Asn Ser Tyr
210 85 90 95
213 Pro Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala
214 100 105 110
217 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
218 115 120 125
221 Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
222 130 135 140
225 Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
226 145 150 155 160
229 Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
230 165 170 175
233 Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
234 180 185 190
237 Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
238 195 200 205
241 Phe Asn Arg Gly Glu Cys
242 210
245 <210> SEQ ID NO: 6
246 <211> LENGTH: 273
247 <212> TYPE: PRT
248 <213> ORGANISM: Artificial Sequence
250 <220> FEATURE:
251 <223> OTHER INFORMATION: Fd-jun in F(ab'-zipper)2 of humanized 1D10 antibody
253 <400> SEQUENCE: 6
255 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu

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256 1 5 10 15
259 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Asn Tyr
260 20 25 30
263 Gly Val His Trp Val Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
264 35 40 45
267 Gly Val Lys Trp Ser Gly Gly Ser Thr Glu Tyr Asn Ala Ala Phe Ile
268 50 55 60
271 Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val Ser Leu
272 65 70 75 80
275 Lys Leu Asn Ser Leu Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
276 85 90 95
279 Arg Asn Asp Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Leu Val
280 100 105 110
283 Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala
284 115 120 125
287 Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu
288 130 135 140
291 Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
292 145 150 155 160
295 Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser
296 165 170 175
299 Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu
300 180 185 190
303 Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr
304 195 200 205
307 Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr
308 210 215 220
311 Cys Pro Pro Cys Lys Cys Pro Ala Gly Gly Arg Ile Ala Arg Leu Glu
312 225 230 235 240
315 Glu Lys Val Lys Thr Leu Lys Ala Gln Asn Ser Glu Leu Ala Ser Thr
316 245 250 255
319 Ala Asn Met Leu Arg Glu Gln Val Ala Gln Leu Lys Gln Lys Val Met
320 260 265 270
323 Asn
327 <210> SEQ ID NO: 7
328 <211> LENGTH: 446
329 <212> TYPE: PRT
330 <213> ORGANISM: Artificial Sequence
332 <220> FEATURE:
333 <223> OTHER INFORMATION: Complete heavy chain of Humanized 1D10 Ab
335 <400> SEQUENCE: 7
337 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
338 1 5 10 15
341 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Asn Tyr
342 20 25 30
345 Gly Val His Trp Val Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
346 35 40 45
349 Gly Val Lys Trp Ser Gly Gly Ser Thr Glu Tyr Asn Ala Ala Phe Ile
350 50 55 60

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353 Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val Ser Leu
 354 65 70 75 80
 357 Lys Leu Asn Ser Leu Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 358 85 90 95
 361 Arg Asn Asp Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Leu Val
 362 100 105 110
 365 Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala
 366 115 120 125
 369 Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu
 370 130 135 140
 373 Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
 374 145 150 155 160
 377 Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser
 378 165 170 175
 381 Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu
 382 180 185 190
 385 Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr
 386 195 200 205
 389 Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr
 390 210 215 220
 393 Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe
 394 225 230 235 240
 397 Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
 398 245 250 255
 401 Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
 402 260 265 270
 405 Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
 406 275 280 285
 409 Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
 410 290 295 300
 413 Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
 414 305 310 315 320
 417 Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
 418 325 330 335
 421 Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
 422 340 345 350
 425 Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
 426 355 360 365
 429 Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
 430 370 375 380
 433 Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
 434 385 390 395 400
 437 Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
 438 405 410 415
 441 Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
 442 420 425 430
 445 Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 446 435 440 445
 449 <210> SEQ ID NO: 8

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 07/29/2004
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:14; Xaa Pos. 2,3,4,5,6,7

VERIFICATION SUMMARY

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L:767 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0